



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,645	09/28/2001	Dong-Gyu Kim	06192.0257.NPUS00	1942

7590 06/11/2003  
McGuire Woods  
1750 Tysons Boulevard  
Suite 1800  
McLean, VA 22102-4215

EXAMINER

WEISS, HOWARD

ART UNIT PAPER NUMBER

2814

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/964,645

Applicant(s)

KIM, DONG-GYU

Examiner

Howard Weiss

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2814

Attorney's Docket Number: 06192.0257.NPUS00

Filing Date: 9/28/01

Continuing Data: none

Claimed Foreign Priority Date: 5/16/01 (KRX)

Applicant(s): Kim

Examiner: Howard Weiss

***Claim Objections***

1. Claim 1 recites the limitation "the front gate lines" in Line 25. There is insufficient antecedent basis for this limitation in the claim.
2. In Claim 10, the limitation is stated as "the volume" but ranged in terms of area (i.e.  $\mu\text{m}^2$ ).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 to 6, 9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Ozaki et al. (U.S. Patent No. 6,476,881).

Ozaki et al. show all aspects of the instant invention (e.g. Figures 4 to 10) including:

- a substrate **35**
- horizontal gate lines **13a,b** connected to gate electrodes
- horizontal storage capacitor line **23**
- a gate insulating layer **37** covering said gate and storage capacitor lines

- a semiconductor pattern **107** formed on said gate insulating layers
- data lines **11a,b** crossing said gate lines, connected to source electrodes **17a,b** and drain electrodes **21a,b**
- a protective layer **39** with two contacts holes: one **29a,b** connecting the drain electrode to pixel electrodes **27a,b** and the other **31a,b** connecting the storage capacitor line to said pixel electrode
- repair members **33a,b** protruding from said gate line and partially overlapping the pixel electrodes
- subsidiary repair members **9a,b**

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki et al. and Song (U.S. Patent No. 5,909,263).

Ozaki et al. show most aspects of the instant invention (Paragraph 4) except for the repair member in a ring shape and the specific range area of overlap. Song teaches (e.g. Figure 4) to form repair (i.e. connection) members **220** in ring form to reduce pixel defects (Column 3 Lines 5 to 8). It would have been obvious to a person of ordinary skill in the art at the time of invention to form repair members in ring form as taught by Song in the device of Ozaki et al. to reduce pixel defects.

Since the Applicant has not established the criticality of range of the overlap area stated and since these overlap areas are in common use in similar devices in the art, it would have been obvious to one of ordinary skill in the art to use these values in

the device of Ozaki et al. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki et al. and Satou (U.S. Patent No. 5,999,155).

Ozaki et al. show most aspects of the instant invention (Paragraph 4) except for the repair member protruded from the pixel electrode. Satou teaches (e.g. Figures 1) to protrude **Cst** the pixel electrode **10** to overlap the gate line **21** to increase yield and reduce cost (Column 1 Lines 43 to 50). It would have been obvious to a person of ordinary skill in the art at the time of invention to protrude the pixel electrode to overlap the gate line as taught by Satou in the device of Ozaki et al. to increase yield and reduce cost.

#### **Conclusion**

8. Papers related to this application may be submitted directly to Art Unit 2814 by facsimile transmission. Papers should be faxed to Art Unit 2814 via the Art Unit 2814 Fax Center located in Crystal Plaza 4, room 3C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The Art Unit 2814 Fax Center number is **(703) 308-7722** or **-7724**. The Art Unit 2814 Fax Center is to be used only for papers related to Art Unit 2814 applications. The official TC2800 Before-Final, **(703) 872-9318**, and After-Final, **(703) 872-9319**, Fax numbers will provide the fax sender with an auto-reply fax verifying receipt of their fax by the USPTO.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Howard Weiss at **(703) 308-4840** and between the hours of 8:00 AM to 4:00 PM (Eastern Standard Time) Monday through Friday or by e-mail via **Howard.Weiss@uspto.gov**.

Art Unit: 2814

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 2800 Receptionist at **(703) 308-0956**.

10. The following list is the Examiner's field of search for the present Office Action:

Field of Search	Date
U.S. Class / Subclass(es): 257/59; 439/43	6/5/03
Other Documentation: PLUS Analysis Report	6/2/03
Electronic Database(s): EAST, IEL	6/5/03



Howard Weiss  
Patent Examiner  
Art Unit 2814

HW/hw  
6 June 2003